

REMARKS

Claims 1, 3, 10-20, 22-24, 27, 32-35, and 38-46 have been amended. Claims 1, 3-6 and 10-46 are currently pending, of which claims 1, 10, 32, and 38 are independent. No new matter has been added.

I. Rejection of Claims 1 and 3-6 under 35 U.S.C. § 103(a)

Claims 1 and 3-6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 5,926,775 to Brumley et al. (hereafter “Brumley”) in view of U.S. Patent Publication Number 2001/0047385 to Tuatini (hereafter “Tuatini”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 1 and 3-6 for at least the reasons set forth below.

A. Claim 1

Independent claim 1 recites:

“In an electronic device a method for accessing an image acquisition device associated with the electronic device independent of an interface protocol of the image acquisition device, the method comprising:
receiving a request to access the image acquisition device, the request specifying a format for a response from the image acquisition device;
establishing a communication channel with a hardware interface of the image acquisition device independent of the interface protocol of the image acquisition device; and
configuring physical connections of the image acquisition device supported by the hardware interface and accessing a feature of the image acquisition device using the communication channel to receive the response in the specified format.” [emphasis added]

Applicants respectfully submit that Brumley and Tuatini, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 1: “configuring physical connections of the image acquisition device supported by the hardware interface and accessing a feature of the image acquisition device using the communication channel to receive the response in the specified format.”

Brumley does not disclose or suggest configuring physical connections of the image acquisition device supported by the hardware interface and accessing a feature of the image acquisition device using the communication channel to receive the response in the specified format, as required by claim 1, because Brumley does not configure physical connections of an image acquisition device. The teachings of Tuatini do not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest this feature of claim 1.

Tuatini discusses that a client system 320 requests services by sending request messages in a client-specific format to an application program (Tuatini, paragraph 0066). A client system receives results of the services in response messages in a client-specific format (Tuatini, paragraph 0066). However, Tuatini does not disclose or suggest configuring physical connections supported by a hardware interface to receive a response in a specified format, as required by claim 1. As such, Tuatini also does not disclose or suggest “configuring physical connections of the image acquisition device supported by the hardware interface and accessing a feature of the image acquisition device using the communication channel to receive the response in the specified format,” as recited in claim 1.

Therefore, Brumley and Tuatini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 1. Accordingly, Applicants respectfully request reconsideration and allowance of claim 1.

B. Claims 3-6

Claims 3-6 depend from independent claim 1 and, as such, incorporate all of the elements of claim 1. Accordingly claims 3-6 are allowable for at least the reasons set forth above with respect to claim 1. Applicants respectfully request reconsideration and allowance of claims 3-6.

II. Rejection of Claims 10-14, 19-25, and 30 under 35 U.S.C. § 103(a)

Claims 10-14, 19-25, and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of U.S. Patent Publication Number 2004/0088349 to Beck (hereafter “Beck”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 10-14, 19-25 and 30 for at least the reasons set forth below.

A. Claim 10

Independent claim 10 recites:

“A method performed in an electronic device for communicating with a selected image acquisition device associated with the electronic device, the method comprising:

establishing a first communication link between a user of the electronic device and an image acquisition engine, *physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format*; and

establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device to allow the user to communicate with the selected image acquisition device.”
[emphasis added]

Applicants respectfully submit that Brumley and Beck, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 10: “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format.”

Brumley does not disclose or suggest physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format, as required by claim 10, because Brumley does not configure physical connections of an image acquisition engine. The teachings of Beck do not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest these features of claim 10.

Beck relates to an Internet Service Provider (ISP) which intercepts HTTP requests from an end-user's browser (Beck, abstract). In response to receiving a request from the end-user that includes a token, the Web server generates a responsive message to the ISP that includes that same temporary user ID token, and which requests the ISP to perform a user-specific action (Beck, abstract). In response to that message, the ISP identifies the user from the token, performs the requested user-specific action and provides the Web server with information relating to the result of the requested action (Beck, abstract). Beck also does not disclose or

suggest “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format,” as recited in claim 10.

Therefore, Brumley and Beck, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 10. Accordingly, Applicants respectfully request reconsideration and allowance of claim 10.

B. Claims 11-14, 19-25, and 30

Claims 11-14, 19-25, and 30 depend from independent claim 10 and, as such, incorporate all of the elements of claim 10. Accordingly, claims 11-14, 19-25, and 30 are allowable for at least the reasons set forth above with respect to claim 10. Applicants respectfully request reconsideration and allowance of claims 11-14, 19-25, and 30.

III. Rejection of Claims 15, 16, 18, and 26-29 under 35 U.S.C. § 103(a)

Claims 15, 16, 18, and 26-29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Beck and further in view of U.S. Patent Number 6,614,916 to MacDonald (hereafter “MacDonald”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 15, 16, 18 and 26-29 for at least the reasons set forth below.

Claims 15, 16, 18, and 26-29 depend from and include the features of claim 10.

As previously discussed in connection with the 35 U.S.C. §103(a) rejection of claim 10, Brumley and Beck, alone or in any reasonable combination, do not disclose or suggest “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format.” Since Brumley and Beck do not disclose or suggest this feature of claim 10, they cannot disclose or suggest this feature for claims depending from claim 10, namely claims 15, 16, 18, and 26-29. The disclosure of MacDonald does not supplement Brumley and Beck in such a way as to cure the failure of Brumley and Beck to disclose or suggest the above features of independent claim 10 or dependent claims 15, 16, 18, and 26-29.

MacDonald relates to a machine vision system and associated triggering method which uses images acquired by a video camera to trigger the video camera (MacDonald, abstract). An image feature of interest is acquired from a triggered video camera (MacDonald, abstract). The video camera continuously acquires images of an object using a portion of the total field of view of the video camera (MacDonald, abstract). The acquired images are compared to a signature image (MacDonald, abstract). In response to determining that one or more of the acquired images matches the signature, the video camera is triggered to acquire a full-frame image which contains the feature of interest (MacDonald, abstract).

MacDonald does not disclose or suggest “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format,” as recited in claims 10, 15, 16, 18, and 26-29, because MacDonald does not generate a response in a user-specified format. Therefore, MacDonald does not cure the shortcomings of Brumley and Beck with respect to independent claim 10 or dependent claims 15, 16, 18, and 26-29.

Therefore, Brumley, Beck and MacDonald, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 15, 16, 18, and 26-29. Accordingly, Applicants respectfully request reconsideration and allowance of claims 15, 16, 18, and 26-29.

IV. Rejection of Claims 17 and 31 under 35 U.S.C. § 103(a)

Claims 17 and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Beck and further in view of U.S. Patent Number 5,201,027 to Casini (hereafter “Casini”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 17 and 31 for at least the reasons set forth below.

Claims 17 and 31 depend from and include the features of independent claim 10.

As previously discussed in connection with the 35 U.S.C. § 103(a) rejection of independent claim 10, Brumley and Beck, alone or in any reasonable combination, do not disclose or suggest “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format.”

Therefore, Brumley and Beck cannot disclose or suggest this feature of dependent claims 17 and 31. The disclosure of Casini does not supplement Brumley and Beck in such a way as to cure the failure of Brumley and Beck to disclose or suggest the above features of claims 17 and 31.

Casini relates to imprinting screen-process printing stencils (Casini, abstract). An electronic device is provided for the color acquisition of the image of a color design so as to obtain information in a digital format stored on a magnetic support (Casini, abstract). A computer is provided for the management of the data stored on the magnetic support, e.g. selecting the fundamental colors, changing or superimposing them, with simultaneous on-screen display or printout on paper (Casini, abstract).

Casini does not disclose or suggest “physical connections of the image acquisition engine supported by a hardware interface being configured to generate a response in a user-specified format,” as recited in claims 10, 17 and 31, because Casini does not generate a response in a user-specified format.

Therefore, Brumley, Beck and Casini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 17 and 31. Accordingly, Applicants respectfully request reconsideration and allowance of claims 17 and 31.

V. Rejection of Claims 32-42 under 35 U.S.C. § 103(a)

Claims 32-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of U.S. Patent Number 5,926,775 to Trsar (hereafter “Trsar”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 32-42 for at least the reasons set forth below.

A. Claim 32

Independent claim 32 recites:

“A device readable medium holding device executable instructions for performing a method in an electronic device for accessing an image acquisition device associated with the electronic device independent of an interface protocol of the image acquisition device, the method comprising:

accessing one of a plurality of image acquisition devices, the plurality of image acquisition devices implementing a plurality of different image acquisition technologies, by:

automatically determining available types of triggers supported by a particular image acquisition device;

providing information on the available types of triggers supported by the particular image acquisition device;

accepting a request to access the particular image acquisition device;

creating a communication channel with the particular image acquisition device independent of the interface protocol of the image acquisition device; and

accessing a feature of the image acquisition device using the communication channel.” [emphasis added]

Applicants respectfully submit that Brumley and Trsar, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 32: “accessing one of a plurality of image acquisition devices, the plurality of image acquisition devices implementing a plurality of different image acquisition technologies ... automatically determining available types of triggers supported by a particular image acquisition device.”

Brumley does not disclose or suggest automatically determining available types of triggers supported by a particular image acquisition device, as required by claim 32. The teachings of Trsar do not supplement Brumley in such a way as to cure the failure of Brumley to disclose or suggest the above feature of claim 32.

Trsar relates to an engine analyzer with a digital oscilloscope display (Trsar, abstract). An engine analyzer 10 is adapted for analyzing the operation of an associated multi-cylinder internal combustion engine 11 by monitoring analog waveform signals generated by the engine 11. Trsar discusses a screen display 30 of an analyzer 10, including a box 40a which displays to the user that auto and signal triggering is available for the analyzer 10. A user uses box 40a to select which type of triggering to use to collect data.

Trsar discusses that the screen display 30 (displaying the triggering information) is specific to a particular engine analyzer. Trsar does not disclose or suggest that the screen

display 30 could be used for a plurality of analyzers implementing a plurality of different image acquisition technologies.

In addition, the screen display 30 of Trsar is a static display, and the triggering information on the screen display 30 is static. The available types of triggers in Trsar as shown on the screen display 30 are fixed, and are based on the single engine analyzer corresponding to the screen display. That is, Trsar does not perform an automatic determination of available types of triggers supported by any of a plurality of image acquisition devices implementing a plurality of different image acquisition technologies, as required by claim 32.

As such, Trsar also does not disclose or suggest “accessing one of a plurality of image acquisition devices, the plurality of image acquisition devices implementing a plurality of different image acquisition technologies ... automatically determining available types of triggers supported by a particular image acquisition device,” as recited in claim 32.

Therefore, Brumley and Trsar, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 32. Accordingly, Applicants respectfully request reconsideration and allowance of claim 32.

B. Claims 33-37

Claims 33-37 depend from independent claim 32 and, as such, incorporate all of the elements of claim 32. Accordingly claims 33-37 are allowable for at least the reasons set forth above with respect to claim 32. Applicants respectfully request reconsideration and allowance of claims 33-37.

C. Claim 38

Independent claim 38 recites:

“A program holding product having instructions executable by an electronic device which, when executed by a processor of the electronic device allows a user of the electronic device to communicate with a selected image acquisition device associated with the electronic device by:

interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies;

linking the image acquisition engine and an interface of the selected image acquisition device using a communication channel operating independent of an interface protocol of the selected image acquisition device allowing the user to communicate with the selected image acquisition device;

automatically determining available types of triggers supported by the selected image acquisition device; and

providing information to the user on the available types of triggers supported by the selected image acquisition device.” [emphasis added]

Applicants respectfully submit that Brumley and Trsar, alone or in any reasonable combination, fail to disclose or suggest at least the following feature of independent claim 38: “interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies... automatically determining available types of triggers supported by the selected image acquisition device.” This claim language requires automatically determining available types of triggers supported by an image acquisition device selected out of a plurality of image acquisition engines. A combination of Brumley and Trsar does not disclose or suggest automatically determining available types of triggers supported by one of a plurality of image acquisition engines implementing a plurality of different image acquisition technologies. Therefore, Brumley and Trsar, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 38. Accordingly, Applicants respectfully request reconsideration and allowance of claim 38.

D. Claims 39-42

Claims 39-42 depend from independent claim 38 and, as such, incorporate all of the elements of claim 38. Accordingly claims 39-42 are allowable for at least the reasons set forth above with respect to claim 38. Applicants respectfully request reconsideration and allowance of claims 39-42.

VI. Rejection of Claims 43, 44, and 46 under 35 U.S.C. § 103(a)

Claims 43, 44, and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Trsar, and further in view of U.S. Patent Number 6,614,916 to MacDonald (hereafter “MacDonald”). Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claims 43, 44, and 46 for at least the reasons set forth below.

Claims 43, 44, and 46 depend from and include the features of claim 38.

Brumley and Trsar, alone or in any reasonable combination, do not disclose or suggest “interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies... automatically determining available types of triggers supported by the selected image acquisition device,” as recited in claims 38, 43, 44, and 46. The teachings of MacDonald do not supplement Brumley and Trsar in such a way as to cure the failure of Brumley and Trsar to disclose or suggest the above features of claims 38, 43, 44, and 46.

MacDonald relates to a machine vision system and associated triggering method which uses images acquired by a video camera to trigger the video camera (MacDonald, abstract). MacDonald does not disclose or suggest “interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies... automatically determining available types of triggers supported by the selected image acquisition device,” as recited in claims 38, 43, 44, and 46, because MacDonald does not automatically determine available types of triggers supported by an image acquisition device selected out of a plurality of image acquisition engines.

Therefore, Brumley, Trsar and MacDonald, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 43, 44, and 46. Accordingly, Applicants respectfully request reconsideration and allowance of claims 43, 44, and 46.

VII. Rejection of Claim 45 under 35 U.S.C. § 103(a)

Claim 45 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Brumley in view of Trsar, and further in view of Casini. Applicants respectfully traverse the above 35 U.S.C. § 103(a) rejection of claim 45 for at least the reasons set forth below.

Claim 45 depends from and includes the features of claim 38.

Brumley and Trsar, alone or in any reasonable combination, do not disclose or suggest “interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies... automatically determining available types of triggers supported by the selected image acquisition device,” as recited in claims 38 and 45. The teachings of Casini do not supplement Brumley and Trsar in such a way as to cure the failure of Brumley and Trsar to disclose or suggest the above features of claims 38 and 45.

Casini relates to imprinting screen-process printing stencils (Casini, abstract). Casini does not disclose or suggest “interfacing a user of the electronic device with one of a plurality of image acquisition engines, the plurality of image acquisition engines implementing a plurality of different image acquisition technologies... automatically determining available types of triggers supported by the selected image acquisition device,” as recited in claims 38 and 45.

Therefore, Brumley, Trsar and Casini, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 45. Accordingly, Applicants respectfully request reconsideration and allowance of claim 45.

CONCLUSION

In light of the above amendments and arguments, Applicants respectfully submit that all of the pending claims are in condition for allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicants' attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-034RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

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Respectfully submitted,

Electronic signature: /Kevin J. Canning/
Kevin J. Canning
Registration No.: 35,470
LAHIVE & COCKFIELD, LLP
One Post Office Square
Boston, Massachusetts 02109-2127
(617) 227-7400
(617) 742-4214 (Fax)
Attorney/Agent For Applicant